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# Indian Standard SPECIFICATION FOR SAFETY PINS

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INDIAN STANDARDS INSTITUTION
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

December 1968

# Indian Standard SPECIFICATION FOR SAFETY PINS

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# Indian Standard SPECIFICATION FOR SAFETY PINS

#### 0. FOREWORD

- 0.1 This Indian Standard was adopted by the Indian Standards Institution on 29 October 1968, after the draft finalized by the Fasteners for Consumer Goods Sectional Committee had been approved by the Consumer Products Division Council.
- 0.2 There are many types of safety pins in use depending on the design of the cap and the end-use to which they are put. In this specification, only 'M' or 'double' type safety pins have been included. The safety pin is called 'M' type when the sweep of the pin in closing through one side of cap and opening through the other, makes an 'M'. As the pin is capable of closing and opening from both sides of the cap, it is also called a 'double' type.
- 0.3 Clause 6.1 of this standard calls for agreement between the purchaser and the supplier, and permits the purchaser to use his option for selection to suit his requirements.
- 0.4 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS: 2-1960\*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

#### 1. SCOPE

1.1 This standard specifies the requirements of 'M' or 'double' type safety pins of sizes 2/0, 0, 1, 2, 3, 4 and 5.

#### 2. MATERIAL

2.1 Safety pin size 2/0 shall be manufactured from brass wire and strip and safety pins of all other sizes shall be manufactured from mild steel wire and strip.

<sup>\*</sup>Rules for rounding off numerical values ( revised ).

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- 2.1.1 Mild Steel Wire and Strip Ultimate tensile strength of the wire in the finished condition shall be 100 to 120 kgf/mm<sup>2</sup>. The strip shall be cold-rolled, bright-annealed, deep drawing quality with slit edges.
- 2.1.2 Brass Wire and Strip Ultimate tensile strength of the wire in the finished condition shall be 70 to 90 kgf/mm<sup>2</sup>. The strip shall be of a deep drawing quality brass with slit edges.

#### 3. SHAPE AND DIMENSIONS

3.1 The shape and dimensions of safety pins shall be as given in Table 1.

#### 4. WORKMANSHIP

4.1 The cap shall be firmly fastened to the stem, such that the fastened length of the stem shall at least be half the length of the cap. It shall be free from burrs. Free end of pin shall gradually taper to sharp point so as to easily pierce coarse cloth. The pointed length shall pass freely on either side of the tongue of the cap. Pointed length shall completely lie inside the cap when closed.

#### 5. FINISH

- 5.1 Steel safety pins shall be nickel-plated and finished bright. The plating shall be done in accordance with service grade No. 2 of IS: 1068-1968\*. The thickness of coating may also be measured by BNF jet test method.
- 5.2 Brass safety pins shall be bright finished.

#### 6. PACKING

6.1 Safety pins shall be packed in cardboard boxes. Sizes 2/0 safety pins shall be packed in 1 000 pieces made up of 100 bunches of 10 pins each. Size 0 safety pins shall be packed unbunched in 1 000 pieces. Sizes 0, 1 and 2 shall be packed in 1 000 pins made up of 100 bunches of 10 pins each. Each bunch shall have four safety pins of size 0, three of size 1 and three of size 2 safety pins. Size 3 and larger sizes of safety pins shall be packed in cartons as required by the purchaser. The safety pins may also be packed as agreed to between the purchaser and the supplier.

#### 7. MARKING

- 7.1 Each box containing the safety pins shall be marked with the following:
  - a) Manufacturer's name, initials or trade-mark;
  - b) Designation of safety pins; and
  - c) Quantity contained in the box.

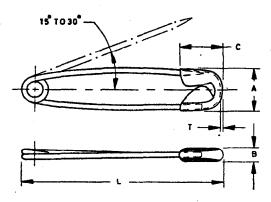
<sup>\*</sup>Secification for electroplated coatings of nickel and chromium on iron and steel (first register).

#### 7.1.1 The boxes may also be marked with the ISI Certification Mark.

Note — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

### TABLE 1 DIMENSIONS OF 'M' TYPE OR 'DOUBLE' TYPE SAFETY PINS (Clause 3.1)

All dimensions in millimetres.



Designa- tion	Length,	Cap Width, A	CAP THICK- NESS, B	Cap Length, <i>C</i>	DIAMETER OF WIRE	DIAMETER OF COILING SPLIT*	Cap Material Thickness, T
(1)	· <b>(2)</b>	(3)	(4)	(5)	(6)	(7)	(8)
2/0 _	23	5.20	2-15	5.70	0.71	2.10 .	0.224
0	28	<b>5</b> ∙85	2.30	6.85	0.80	2.55	0.250
1	34	6.60	2.30	7.25	0.80	2.90	0.250
2	<b>4</b> 0	7.75	2.65	8.25	0.90	3.40	0.250
3	46	8.65	3.00	9.55	1.00	3.80	0.250
. 4	53	9.90	3.05	11.90	1.20	4.35	0.315
5	60	9.90	3.05	11.90	1.20	4.75	0.315
Tolerance	±1·0	±0·15	±0.12	± 0.25	±0.04	±0.05	±0.020

<sup>\*</sup>Tool on which safety pin wire is coiled.

### INTERNATIONAL SYSTEM OF UNITS (SI UNITS)

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Quantily	Unit	Symbol	
Length	metre	m	
Mass	kilogram	kg	
Time	second	8	
Electric current	ampere	A	
Thermodynamic temperature	kelvin	К	
Luminous intensity	candela	cd	
Amount of substance	mole	mol	
Supplementary Units			
Quantity	Unit	Symbol	
Plane angle	radian	rad	
Solid angle	steradian	ar	
Derived Units			
Quantity	Unit	Symbol	Conversion
Force	newton	N	1 N = 1 kg.1 m/s <sup>2</sup>
Energy	joule	J	1 J-1N.m
Power	watt	W	1 W = 1 J/s
Flux	weber	Wb	1 Wb - 1 V.s
Flux density	tesla	T	1 T - 1 Wb/m*
Frequency	hertz	Hz	1 Hz 1 c/s (s-1)
Electric conductance	slemens	S	1 S-1 A/V
Pressure, stress	pascal'	Pa	1 Pa = 1 N/m2

#### INDIAN STANDARDS INSTITUTION

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